31 January 2020

Ms. Sarah Fangman, Superintendent
Florida Keys National Marine Sanctuary
33 East Quay Rd.
Key West, FL, 33040

Dear Ms. Fangman:

On 30 August 2019, the National Oceanic and Atmospheric Administration's (NOAA) Office of National Marine Sanctuaries (ONMS) published a *Federal Register* notice (84 Fed. Reg. 45728) seeking public comment on a draft environmental impact statement (DEIS; NOAA 2019) evaluating alternatives for potential changes to the Florida Keys National Marine Sanctuary (FKNMS or 'the Sanctuary') and its management plan. The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, supports the changes proposed in the Draft Environmental Impact Statement's (DEIS) preferred alternative, subject to revisions consistent with the comments and recommendations provided below.

ONMS proposes the following changes to the FKNMS and its management, expanding the Sanctuary's boundary, modifying and establishing new 'marine zones',[1] updating regulations, and revising the non-regulatory management plan. Reflecting the conclusions of a 2011 condition report (NOAA 2011), ONMS states that these changes are needed to address "widespread, acute, chronic, and emerging threats to marine resources in the Florida Keys" and because the existing regulations, marine zones, and management plan, are "no longer sufficient to ensure long-term protection and ecosystem function integrity." The DEIS analyzes four alternatives with different sets of proposed changes. The DEIS indicates that the identified alternatives are intended to "counteract the decline in resource condition in the Florida Keys through a series of regulatory and management measures designed to reduce threats and, where appropriate, restore coral reefs, seagrasses, and other important habitats." ONMS first considers a 'no action' (status quo) alternative, followed by alternatives 2 to 4, which propose changes that would provide increasing levels of environmental protection, each alternative adding to the changes proposed in the previous alternative.

[1] The DEIS states: "The FKNMS marine zones have differing levels of use and protection for each area and are designed to protect and preserve sensitive parts of the ecosystem while allowing activities that are compatible with resource protection. FKNMS marine zones include:
- Wildlife management areas (WMAs) that protect shallow water habitats and dependent wildlife,
- Sanctuary preservation areas (SPAs) that separate conflicting uses and protect the reef structure,
- Special use areas (SUAs) that support specific targeted activities such as research and restoration,
- Ecological reserves (ERs) that protect large contiguous habitats, and
- Existing management areas (EMAs) that provide for the continued management of areas that were established prior to sanctuary designation in 1997 and are subject to their own protections and restrictions in addition to sanctuary-wide regulations."

The FKNMS currently encompasses 3,800 sq. mi. of marine habitats and contains 57 marine zones. Alternative 2 would increase the size of the Sanctuary to approximately 4,500 sq. mi., and the number of marine zones to 96, adding 32 wildlife-management areas (WMAs), 7 special-use areas, and 2 conservation areas. ONMS's 'preferred alternative', Alternative 3, tracks Alternative 2, but includes additional regulations to protect marine zones to "reduce overuse of sanctuary resources and limit habitat degradation from prop scarring, anchor damage, and impacts to wildlife species." Alternative 3 would establish idle-speed/no-wake, no-motor, no-anchor, trolling-only, and/or no-entry vessel provisions in WMAs. Alternative 4 proposes additional protective regulations for the marine zones, would combine some existing zones, and would increase the size of the Sanctuary to 4,800 sq. mi. In particular, Alternative 4 would impose slow speed regulations on watercraft close to shorelines throughout the Sanctuary.

The DEIS reports that 20 species of cetaceans and the Florida manatee (*Trichechus manatus latirostris*) reside in or travel through the Sanctuary. Most of the cetaceans occur in offshore areas, often seasonally, and relatively little is known about their distribution within and use of the Sanctuary. However, bottlenose dolphins (*Tursiops truncatus*) are well studied and are known to occur year-around in the Sanctuary in offshore waters and in a variety of shallow-water habitats. Florida manatees, a threatened species under the Endangered Species Act (ESA), are found in the Sanctuary in the winter in warm, shallow-water habitats (e.g., tidal streams, mangroves, sea grass meadows, and salt marshes) where they seek shelter and forage on seagrasses and other vegetation. In winter, especially in cold winters, manatees seek refuge in warm-water habitats near natural springs and power plants, and at the southern tip of Florida (Smith et al. 2010). Critical habitat for Florida manatees is comprised of several areas around Florida, including areas within the Sanctuary (75 Fed. Reg. 1574).

Bottlenose dolphins and manatees face several anthropogenic threats in the Sanctuary, including watercraft strikes, habitat destruction caused by motorized vessels, entanglement in fishing gear, disturbance from vessels, harassment, and hazardous algal blooms caused or exacerbated by nutrient pollution. A 2006 threat analysis concluded that the "largest known cause of human-related mortality of manatees in Florida is watercraft collisions" (Haubold et al. 2006, Runge et al. 2007).

In general, the Commission supports the proposed changes to the Sanctuary and its management designed to improve habitat quality and protect wildlife. In particular, the Commission supports the proposed changes to marine zone regulations under Alternatives 2-4 designed to reduce or minimize watercraft collisions with, and disturbance/harassment of, manatees and bottlenose dolphins and propeller damage to seagrass beds. The Commission also supports the proposal in Alternatives 2-4 to prohibit feeding "fish, sharks or other marine species from any vessel and/or while diving" (emphasis added). Although feeding or attempting to feed a marine mammal in the wild is prohibited under Marine Mammal Protection Act regulations[2], feeding bottlenose dolphins is still a common practice in some parts of Florida. The Commission does not object to including a parallel ban on feeding marine mammals in Sanctuary regulations, but notes that vigorous enforcement of the existing ban is needed as well. This is important in light of studies demonstrating that dolphin feeding in Florida and elsewhere can have detrimental effects on the animal's health and survival (e.g., Orams 2002, Samuels and Bejder 2004, Donaldson et al. 2010, Powell and Wells 2011, Christiansen et al. 2016).

[2] See definition of "take" in 50 C.F.R. § 216.3.

The Florida Fish and Wildlife Commission reported that nearly one million boats were registered in Florida in 2018 (Florida Fish and Wildlife Conservation Commission 2018). Most manatees have scars indicative of contact with boat propellers (e.g., Wright et al. 1995, Runge et al. 2007, Allen et al. 2014, Goldsworthy Gomez 2018). Thirty-five percent of manatee deaths with a known cause are attributed to vessel strikes (Haubold et al. 2006), a source of mortality sufficient to reduce substantially the population growth rate (Runge et al. 2007). Because manatees often rest at the surface and forage in shallow water, they are especially susceptible to being struck by vessels. Edwards et al. (2016) estimated that manatees were within 'striking depth' of watercraft 78 percent of the time.

Despite the high incidence of watercraft-manatee encounters, ONMS found "collisions [to be] … highly unlikely due to NOAA's implementation of best management practices and relatively low level of vessels … activity." However, given the large number of recreational watercraft in Florida, the number of manatees that winter in the Sanctuary, and the number of vessel strikes that have been documented in the Sanctuary, the Commission believes the risk to be significant, and that strong vessel speed regulations should be incorporated into the preferred alternative and, ultimately, the final agency action. While ONMS's preferred Alternative 3 would provide adequate protections within marine zones, the envisioned speed regulations and vessel prohibitions would not apply elsewhere in the Sanctuary. Alternative 4 would provide increased protections by requiring all vessels to travel at no-wake/idle speeds when near shorelines throughout the Sanctuary. Although this would not protect manatees everywhere in the Sanctuary, it would provide broader protections from vessel impacts than under Alternative 3. The Commission therefore recommends that NOAA either adopt Alternative 4 or include the no-wake/idle speed regulation as an element of whatever alternative it adopts. Further, the Commission recommends that NOAA expand the scope of the vessel regulations to apply to all waters within the Sanctuary where manatees occur, perhaps on a seasonal basis. The area could be defined by water depth, and/or habitat, and limited to locations where average densities of manatees exceed a predefined threshold that would protect at least 95 percent of the population present in the Sanctuary.

We hope these comments and recommendations are helpful. Please contact me if you have questions regarding the Commission's recommendations.

Sincerely,

Peter O. Thomas, Ph.D.,
Executive Director

References

Allen, AC, DC Sattelberger, and EO Keith. 2014. The People vs. the Florida manatee: a review of the laws protecting Florida's endangered marine mammal and need for application. *Ocean & Coastal Management* 102:40-46.

Christiansen, F, KA McHugh, L Bejder, EM Siegal, D Lusseau, E Berens McCabe, G Lovewell, and RS Wells. 2016. Food provisioning increases the risk of injury and mortality in a long-lived marine top predator. *Royal Society Open Science* 3:160560.

Cunningham-Smith, P, DE Colbert, RS Wells, and T Speakman. 2006. Evaluation of human interactions with a provisioned wild bottlenose dolphin (*Tursiops truncatus*) near Sarasota Bay, Florida, and efforts to curtail the interactions. *Aquatic Mammals* 32:346–356.

Donaldson, R, H Finn, and M Calver. 2010. Illegal feeding increases risk of boat-strike and entanglement in bottlenose dolphins in Perth, Western Australia. *Pacific Conservation Biology* 163(3):157-161.

Edwards, HH, J Martin, CJ Deutsch, RG Muller, SM Koslovsky, AJ Smith, and ME Barlas. 2016. Influence of manatees' diving on their risk of collision with watercraft. PloS One 11(4):e0151450.

Florida Fish and Wildlife Conservation Commission. 2018. Boating Accidents Statistical Report. Florida Fish and Wildlife Conservation Commission, Division of Law Enforcement. 6 pp.

Goldsworthy Gomez, L. 2018. Regionalization of Scar Patterns on The Florida Manatee (*Trichechus manatus latirostris*) Observed at Harbor Branch Oceanographic Institute, Florida. Masters Thesis submitted to Florida Atlantic University.

Haubold, EM, C Deutsch, and C Fonnesbeck. 2006. Final Biological Status Review of the Florida Manatee (*Trichechus manatus latirostris*). Florida Fish and Wildlife Conservation Commission.

NOAA. 2011. Florida Keys National Marine Sanctuary Condition Report. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 105 pp.

ONMS. 2019. Draft Environmental Impact Statement for Florida Keys National Marine Sanctuary: A Restoration Blueprint. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 581 pp.

Orams, MB. 2002. Feeding wildlife as a tourism attraction: A review of issues and impacts. *Tourism Management* 23:281-93.

Powell, JR, and RS Wells. 2011. Recreational fishing depredation and associated behaviors involving common bottlenose dolphins (*Tursiops truncatus*) in Sarasota Bay, Florida. *Marine Mammal Science* 27: 111-129.

Runge, MC, CA Sanders-Reed, CA Langtimm, and CJ Fonnesbeck. 2007. A Quantitative Threats Analysis for the Florida Manatee (*Trichechus manatus latirostris*). U.S. Geological Survey Open-File Report 2007-1086. 34 pp.

Samuels, A, and L Bejder. 2004. Chronic interaction between humans and free-ranging bottlenose dolphins near Panama City Beach, Florida, USA. *Journal of Cetacean Research and Management* 6(1):69-77.

Smith, BM, JP Reid, CA Langtimm, ED Swain, TJ Doyle, DH Slone, JD Decker, and LE Soderqvist. 2010. Temperature inverted haloclines provide winter warm-water refugia for manatees in Southwest Florida. *Estuaries and Coasts* 35:106-119.

Wright, SD, BB Ackerman, RK Bonde, CA Beck, and DJ Banowetz. 1995. Analysis of watercraft-related mortality of manatees in Florida, 1979-1991. Pages 259-268, in TJ O'Shea, BB Ackerman, and HF Percival, editors. Population Biology of the Florida Manatee. National Biological Service Information and Technology Report 1. Washington, D.C. 289 pp.